IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

APPEAL BRIEF FOR THE APPELLANT

Ex parte TRAN

METHOD AND APPARATUS FOR REGULATING TRANSCEIVER POWER CONSUMPTION FOR A TRANSCEIVER IN A COMMUNICATIONS NETWORK

Serial No. 09/886,859
Appeal No.:
Group Art Unit: 2116

Enclosed is a check in the amount of Five Hundred Dollars ($500.00) to cover the official fee for this Appeal Brief. In the event that there may be any fees due with respect to the filing of this paper, please charge Deposit Account No. 50-2222.

Majid S. AlBassam
Attorney for Appellant(s)
Reg. No. 54,749

SQUIRE, SANDERS & DEMPSEY LLP
8000 Towers Crescent Drive, 14th Floor
Tysons Corner, VA 22182-2700

Atty. Docket: 058268.00137

MSA/jf

Encls: Check No. 16813
Appeal Brief

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Appellant:

Hoang Tan TRAN — Appeal No.:

Serial Number: 09/886,859 — Group Art Unit: 2116

Filed: June 21, 2001 — Examiner: Paul B. Yanchus

For: METHOD AND APPARATUS FOR REGULATING TRANSCEIVER POWER CONSUMPTION FOR A TRANSCEIVER IN A COMMUNICATIONS NETWORK

BRIEF ON APPEAL

July 31, 2007

I. INTRODUCTION

This is an appeal from the final rejection set forth in an Official Action dated July 29, 2007, finally rejecting claims 1-24, all of the claims pending in this application, as being unpatentable over Bar-Niv (U.S. Patent No. 6,442,142). A Request for Reconsideration was timely filed on March 27, 2007. An Advisory Action was issued on April 24, 2007, indicating that the final rejections were maintained. A Notice of Appeal was timely filed on April 30, 2007 with a Pre-Appeal Brief Request for Review. This Appeal Brief is being timely filed.

II. REAL PARTY IN INTEREST

The real parties in interest in this application are Broadcom Corporation of Irvine, California, by virtue of an Assignment which was submitted for recordation on June 21, 2001, and which was recorded at Reel 011930, Frame 0483, June 21, 2001, and an Assignment submitted for recordation on May 23, 2002, and which was recorded at Reel

012926, Frame 0062, May 23, 2002.

III. STATEMENT OF RELATED APPEALS AND INTERFERENCES

There are no known related appeals and/or interferences which will directly effect or be directly effected by or have a bearing on the Board's decision in this appeal.

IV. STATUS OF CLAIMS

Claims 1-24, all of the claims pending in the present application are the subject of this appeal. Claims 1-5, 11-17, and 23-24 were rejected under 35 U.S.C. §102(e) as being anticipated by Bar-Niv (U.S. Patent No. 6,442,142). Claims 6-10 and 18-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bar-Niv, in view of Uppunda (U.S. Patent No. 6,678,728).

V. STATUS OF AMENDMENTS

No amendments were filed after the final rejection.

VI. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 1, upon which claims 2-12 are dependent, recites a method of regulating transceiver power consumption for a transceiver in a communications network (Specification, page 3, lines 5-7, page 5, lines 16-21, Figure 5). The method includes monitoring data received by the transceiver to detect the presence or absence of a received data signal (Specification, page 3, lines 7-8, page 6, line 10 – page 7, line 25, page 10, lines 18-19, Figure 5), and controlling a transceiver state machine to regulate

transceiver power consumption in response to the presence or absence of the data received (Specification, page 3, lines 8-10, page 7, line 25 – page 8, line 10, page 10, lines 19-31, Figure 5). The transceiver state machine includes a wake-up control and a power down control (Specification, page 8, lines 11-15, Figure 4). The wake-up control is configured to send power control signals to a transmitter and the power down control is configured to send power control signals to all components of the transceiver (Specification, page 8, lines 20-29, page 10, lines 29-32, page 11, lines 14-19, page 11, lines 30-35, Figures 4 and 5).

Claim 13, upon which claims 14-24 are dependent, recites a transceiver power consumption regulator for a transceiver in a communications network (Specification, page 3, lines 5-7, page 5, lines 16-21, Figures 3 and 4). The transceiver power consumption regulator includes a data received monitor located on the transceiver to detect the presence or absence of a received data signal (Specification, page 3, lines 7-8, page 6, line 10 – page 7, line 25, page 10, lines 18-19, Figures 3-5), and a transceiver state machine coupled between the data received monitor and transceiver components to regulate transceiver power consumption of the transceiver in response to the presence or absence of the data received detected by the data received monitor (Specification, page 3, lines 8-10, page 7, line 25 – page 8, line 10, page 10, lines 19-31, Figures 3-5). The transceiver state machine includes a wake-up control and a power down control (Specification, page 8, lines 11-15, Figure 4). The wake-up control is configured to send power control signals to a transmitter and the power down control is configured to send power control signals to all components of the transceiver (Specification, page 8, lines 20-29, page 10, lines 29-32, page 11, lines 14-19, page 11, lines 30-35, Figures 3-5).

VII. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection to be reviewed on appeal are the rejection of claims 1-5, 11-17, and 23-24 under 35 U.S.C. §102(e) as being anticipated by Bar-Niv (U.S. Patent No. 6,442,142), and the rejection of claims 6-10 and 18-22 under 35 U.S.C. §103(a) as being unpatentable over Bar-Niv, in view of Uppunda (U.S. Patent No. 6,678,728).

VIII. APPELLANT'S ARGUMENTS

Appellants respectfully submit that each of pending claims 1-24 recites subject matter that is not taught, disclosed, or suggested by the cited art. Each of the claims is being argued separately, and thus, each of the claims stands or falls alone.

A. Claims 1-5, 11-17, and 23-24 are novel in view Bar-Niv

In the final Office Action, claims 1-5, 11-17, and 23-24 were rejected under 35 U.S.C. §102(e) as being anticipated by Bar-Niv (U.S. Patent No. 6,442,142). Appellants submit that each of claims 1-5, 11-17, and 23-24 recite subject matter that is not taught or disclosed by Bar-Niv, and as such, the Board's reversal of the rejection is respectfully requested.

1) Claim 1

Claim 1 recites a method of regulating transceiver power consumption for a transceiver in a communications network. The method includes monitoring data received by the transceiver to detect the presence or absence of a received data signal, and controlling a transceiver state machine to regulate transceiver power consumption in response to the presence or absence of the data received. The transceiver state

machine includes a wake-up control and a power down control. The wake-up control is configured to send power control signals to a transmitter and the power down control is configured to send power control signals to all components of the transceiver.

Appellants respectfully submit that claim 1 recites subject matter which is neither disclosed nor suggested by Bar-Niv.

Bar-Niv discloses a base-band receiver energy detection system. The signal energy detection system includes a digital filter which analyzes incoming pulses at a plurality of times to make an initial determination of signal energy on a communication line. The initial determination is further analyzed in a signal validation machine, which checks a time interval between consecutive signals found in the initial determination, in order to make an accurate final determination of the presence of valid signal energy on the communication line.

Appellants note that a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Additionally, the "identical invention must be shown in as complete detail as is contained in the...claim" Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Appellants submit that the final Office Action has failed to establish a prima facie case for anticipation as Bar-Niv fails to disclose each and every element of claim 1. For instance, Bar-Niv fails to disclose or suggest "wherein the transceiver state machine includes a wake-up control and a power down control, the wake-up control being configured to send power control signals to a transmitter and the power down control

being configured to send power control signals to all components of the transceiver," as recited in claim 1.

In the response to arguments section, the final Office Action took the position that the energy-on state machine and power module of Bar-Niv together act as a wake-up control and power-down control for the transceiver (final Office Action, page 8). In other words, the Office Action appears to have taken the position that the power module of Bar-Niv corresponds to the wake-up control of the present invention and that the ENERGYON signal of Bar-Niv corresponds to the power down control of the present invention. However, Appellants respectfully disagree.

Bar-Niv merely discloses that the power module receives the ENERGYON signal and, responsive thereto, supplies power to operate modules of the device (Bar-Niv, Column 2, lines 41-43). In other words, Bar-Niv teaches that the power module receives an ENERGYON signal and, based on the level of that signal, supplies power to the transceiver circuitry or powers down the transceiver circuitry.

Claim 1, on the other hand, recites a first element (the wake-up control) which sends power control signals to a transmitter and another element (the power down control) which sends power control signals to all components of the transceiver. According to embodiments of the present invention, both a wake-up control and power down control are provided. The wake-up control, included in the transceiver state machine of the present invention, sends power control signals to a transmitter. The power down control of the present invention sends power control signals to all components of the transceiver, except the transmitter and signal detection. The power control signal being sent is automatically determined in response to the presence or

absence of an energy detect signal (Specification, Page 8, lines 17-27).

Bar-Niv, as discussed above, merely teaches the use of a power module that powers down or powers up the transceiver circuitry based on the ENERGYON level. Nowhere does Bar-Niv disclose a control which sends power control signals to a transmitter and a control which sends power control signals to all components of the transceiver. Rather, Bar-Niv only discloses a power module that supplies power to the transceiver circuitry when the ENERGYON signal is at level 1 (Bar-Niv, Column 4, lines 15-16 and Column 6, line 30).

The final Office Action asserted that the transceiver circuitry would inherently include some type of transmitter (Office Action, page 8). However, Appellants respectfully note that a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Bar-Niv teaches that the transceiver circuitry includes "a link monitor 34, and an autonegotiation mechanism 36. The autonegotiation mechanism selects an operating mode of the transceiver, as explained in the Background of the Invention. Link monitor 34 checks for link signals on communication line 14. If link signals are present, monitor 34 generates a LINK_ON signal. If link signals are not present, monitor 34 generates a LINK_OFF signal" (Bar-Niv, Column 4, lines 17-25). Bar-Niv does not disclose, either inherently or expressly, that the transceiver circuitry includes a transmitter which receives power control signals from a wake-up control. As such, Bar-Niv fails to disclose a wake-up control which sends power control signals to a transmitter.

Moreover, Bar-Niv clearly fails to disclose or suggest a transceiver state machine

which includes a wake-up control or a power-down control. More specifically, Bar-Niv does not disclose a wake-up control that sends power control signals to a transmitter and a power down control that sends power control signals to all components of the transceiver. Bar-Niv merely discloses that "when the ENERGYON signal is at level 1, module 30 supplies power to transceiver circuitry 32. When the ENERGYON signal is at level 0, module 30 powers down circuitry 32" (Bar-Niv, Column 6, lines 29-32). Neither the power module nor the ENERGYON signal of Bar-Niv correspond to the wake-up control and power down control of the present invention. The present claims specifically recite that the wake-up control sends power control signals to a transmitter, while the power down control sends power control signals to all components of the transceiver. Bar-Niv does not disclose or suggest a wake-up control that sends power control signals to a transmitter nor does it disclose or suggest a power down control that sends power control signals to all components of the transceiver, except the transmitter and signal detection. Bar-Niv only discloses a single module which powers down the entire transceiver circuitry when the ENERGYON signal is at 0.

Therefore, Appellants respectfully submit Bar-Niv fails to disclose or suggest "wherein the transceiver state machine includes a wake-up control and a power down control, the wake-up control being configured to send power control signals to a transmitter and the power down control being configured to send power control signals to all components of the transceiver," as recited in claim 1.

Thus, Appellants respectfully submit that Bar-Niv fails to disclose or suggest all of the elements of claim 1. As such, reconsideration and withdrawal of the rejection is respectfully requested.

2) Claim 2

Claim 2 is dependent upon claim 1, and recites further limitations. Thus, claim 2 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

3) Claim 3

Claim 3 is dependent upon claim 1, and recites further limitations. Thus, claim 3 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

4) Claim 4

Claim 4 is dependent upon claim 1, and recites further limitations. Thus, claim 4 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

5) Claim 5

Claim 5 is dependent upon claim 1, and recites further limitations. Thus, claim 5 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

6) Claim 11

Claim 11 is dependent upon claim 1, and recites further limitations. Thus, claim 11 is patentable at least for the reasons claim 1 is patentable, and further, because it

recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

7) Claim 12

Claim 12 is dependent upon claim 1, and recites further limitations. Thus, claim 12 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

8) Claim 13

Claim 13 recites a transceiver power consumption regulator for a transceiver in a communications network. The transceiver power consumption regulator includes a data received monitor located on the transceiver to detect the presence or absence of a received data signal, and a transceiver state machine coupled between the data received monitor and transceiver components to regulate transceiver power consumption of the transceiver in response to the presence or absence of the data received detected by the data received monitor. The transceiver state machine includes a wake-up control and a power down control. The wake-up control is configured to send power control signals to a transmitter and the power down control is configured to send power control signals to all components of the transceiver.

Appellants respectfully submit that claim 13 recites subject matter which is neither disclosed nor suggested by Bar-Niv.

Bar-Niv discloses a base-band receiver energy detection system. The signal energy detection system includes a digital filter which analyzes incoming pulses at a plurality of times to make an initial determination of signal energy on a communication

line. The initial determination is further analyzed in a signal validation machine, which checks a time interval between consecutive signals found in the initial determination, in order to make an accurate final determination of the presence of valid signal energy on the communication line.

Appellants note that a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Additionally, the "identical invention must be shown in as complete detail as is contained in the...claim" Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Appellants submit that the final Office Action has failed to establish a prima facie case for anticipation as Bar-Niv fails to disclose each and every element of claim 13. For instance, Bar-Niv fails to disclose or suggest "wherein the transceiver state machine includes a wake-up control and a power down control, the wake-up control being configured to send power control signals to a transmitter and the power down control being configured to send power control signals to all components of the transceiver," as recited in claim 13.

In the response to arguments section, the final Office Action took the position that the energy-on state machine and power module of Bar-Niv together act as a wake-up control and power-down control for the transceiver (final Office Action, page 8). In other words, the final Office Action appears to have taken the position that the power module of Bar-Niv corresponds to the wake-up control of the present invention and that the ENERGYON signal of Bar-Niv corresponds to the power down control of the present

invention. Appellants respectfully disagree.

Bar-Niv merely discloses that the power module receives the ENERGYON signal and, responsive thereto, supplies power to operate modules of the device (Bar-Niv, Column 2, lines 41-43). In other words, Bar-Niv teaches that the power module receives an ENERGYON signal and, based on the level of that signal, supplies power to the transceiver circuitry or powers down the transceiver circuitry.

Claim 13, on the other hand, recites a first element (the wake-up control) which sends power control signals to a transmitter and another element (the power down control) which sends power control signals to all components of the transceiver. According to embodiments of the present invention, both a wake-up control and power down control are provided. The wake-up control, included in the transceiver state machine of the present invention, sends power control signals to a transmitter. The power down control of the present invention sends power control signals to all components of the transceiver, except the transmitter and signal detection. The power control signal being sent is automatically determined in response to the presence or absence of an energy detect signal (Specification, Page 8, lines 17-27).

Bar-Niv, as discussed above, merely teaches the use of a power module that powers down or powers up the transceiver circuitry based on the ENERGYON level. Nowhere does Bar-Niv disclose a control which sends power control signals to a transmitter and a control which sends power control signals to all components of the transceiver. Rather, Bar-Niv only discloses a power module that supplies power to the transceiver circuitry when the ENERGYON signal is at level 1 (Bar-Niv, Column 4, lines 15-16 and Column 6, line 30).

The final Office Action asserted that the transceiver circuitry would inherently include some type of transmitter (Office Action, page 8). However, as outlined above, a "claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference" *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Bar-Niv teaches that the transceiver circuitry includes "a link monitor 34, and an autonegotiation mechanism 36. The autonegotiation mechanism selects an operating mode of the transceiver, as explained in the Background of the Invention. Link monitor 34 checks for link signals on communication line 14. If link signals are present, monitor 34 generates a LINK_ON signal. If link signals are not present, monitor 34 generates a LINK_OFF signal" (Bar-Niv, Column 4, lines 17-25). Bar-Niv does not disclose, either inherently or expressly, that the transceiver circuitry includes a transmitter which receives power control signals from a wake-up control. As such, Bar-Niv fails to disclose a wake-up control which sends power control signals to a transmitter.

Moreover, Bar-Niv clearly fails to disclose or suggest a transceiver state machine which includes a wake-up control or a power-down control. More specifically, Bar-Niv does not disclose a wake-up control that sends power control signals to a transmitter and a power down control that sends power control signals to all components of the transceiver. Bar-Niv merely discloses that "when the ENERGYON signal is at level 1, module 30 supplies power to transceiver circuitry 32. When the ENERGYON signal is at level 0, module 30 powers down circuitry 32" (Bar-Niv, Column 6, lines 29-32). Neither the power module nor the ENERGYON signal of Bar-Niv correspond to the wake-up control and power down control of the present invention. The present claims specifically

recite that the wake-up control sends power control signals to a transmitter, while the power down control sends power control signals to all components of the transceiver. Bar-Niv does not disclose or suggest a wake-up control that sends power control signals to a transmitter nor does it disclose or suggest a power down control that sends power control signals to all components of the transceiver, except the transmitter and signal detection. Bar-Niv only discloses a single module which powers down the entire transceiver circuitry when the ENERGYON signal is at 0.

Therefore, Appellants respectfully submit Bar-Niv fails to disclose or suggest "wherein the transceiver state machine includes a wake-up control and a power down control, the wake-up control being configured to send power control signals to a transmitter and the power down control being configured to send power control signals to all components of the transceiver," as recited in claim 13.

Thus, Appellants respectfully submit that Bar-Niv fails to disclose or suggest all of the elements of claim 13. As such, reconsideration and withdrawal of the rejection is respectfully requested.

9) Claim 14

Claim 14 is dependent upon claim 13, and recites further limitations. Thus, claim 14 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

10) Claim 15

Claim 15 is dependent upon claim 13, and recites further limitations. Thus, claim 15 is patentable at least for the reasons claim 13 is patentable, and further, because it

recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

11) Claim 16

Claim 16 is dependent upon claim 13, and recites further limitations. Thus, claim 16 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

12) Claim 17

Claim 17 is dependent upon claim 13, and recites further limitations. Thus, claim 17 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

13) Claim 23

Claim 23 is dependent upon claim 13, and recites further limitations. Thus, claim 23 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

14) Claim 24

Claim 24 is dependent upon claim 13, and recites further limitations. Thus, claim 24 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

B. Claims 6-10 and 18-22 are not obvious in view of Bar-Niv and Uppunda

In the final Office Action, claims 6-10 and 18-22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Bar-Niv in view of Uppunda (U.S. Patent No. 6,678,728). The Office Action took the position that Bar-Niv discloses all the elements of claims 6-10 and 18-22, with the exception of controlling the transceiver to transmit link determination signals to devices on the communications network when the transceiver is in a power-down mode. The Office Action then relied upon Uppunda as allegedly curing this deficiency in Bar-Niv. Appellants submit that each of claims 6-10 and 18-22 recite subject matter that is not taught or disclosed by the combination of Bar-Niv and Uppunda, and as such, the Board's reversal of the rejection is respectfully requested.

1) Claim 6

Appellants respectfully submit that claim 6 recites subject matter which is neither disclosed nor suggested by the combination of Bar-Niv and Uppunda, and as such, the Board's reversal of the rejection is respectfully requested.

Bar-Niv is discussed above. Uppunda discloses a method and apparatus for automatically loading device status information into a network device. An embodiment of the invention includes an apparatus in a network device that enters a sleep state under particular conditions. The apparatus includes a buffer for storing data that is to be transmitted and a memory device that stores configuration data. The configuration data is loaded to the apparatus each time the network device is powered up.

Claim 6 is dependent upon claim 1, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 1. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv, as Uppunda also fails to disclose or

suggest a transceiver state machine that includes a wake-up control and a power down control. Thus, claim 6 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

2) Claim 7

Claim 7 is dependent upon claim 1, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 1. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 7 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

3) Claim 8

Claim 8 is dependent upon claim 1, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 1. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 8 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

4) Claim 9

Claim 9 is dependent upon claim 1, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 1. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 9 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations.

Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

5) Claim 10

Claim 10 is dependent upon claim 1, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 1. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 10 is patentable at least for the reasons claim 1 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

6) Claim 18

Appellants respectfully submit that claim 18 recites subject matter which is neither disclosed nor suggested by the combination of Bar-Niv and Uppunda, and as such, the Board's reversal of the rejection is respectfully requested.

Bar-Niv is discussed above. Uppunda discloses a method and apparatus for automatically loading device status information into a network device. An embodiment of the invention includes an apparatus in a network device that enters a sleep state under particular conditions. The apparatus includes a buffer for storing data that is to be transmitted and a memory device that stores configuration data. The configuration data is loaded to the apparatus each time the network device is powered up.

Claim 18 is dependent upon claim 13, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 13. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv, as Uppunda also fails to disclose or suggest a transceiver state machine that includes a wake-up control and

a power down control. Thus, claim 18 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

7) Claim 19

Claim 19 is dependent upon claim 13, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 13. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 19 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

8) Claim 20

Claim 20 is dependent upon claim 13, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 13. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 20 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

9) Claim 20

Claim 20 is dependent upon claim 13, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 13. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 20 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be

reversed and this claim allowed.

10) Claim 21

Claim 21 is dependent upon claim 13, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 13. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 21 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

11) Claim 22

Claim 22 is dependent upon claim 13, and recites further limitations. As outlined above, Bar-Niv does not disclose or suggest all of the limitations of claim 13. Furthermore, Uppunda does not cure the deficiencies of Bar-Niv. Thus, claim 22 is patentable at least for the reasons claim 13 is patentable, and further, because it recites additional limitations. Accordingly, it is respectfully requested that this rejection be reversed and this claim allowed.

For all of the above noted reasons, it is strongly contended that certain clear differences exist between the present invention as claimed in claims 1-24 and the prior art relied upon by the Examiner. It is further contended that these differences are more than sufficient that the present invention would not have been obvious to a person having ordinary skill in the art at the time the invention was made.

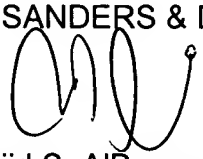
This final rejection being in error, therefore, it is respectfully requested that this honorable Board of Patent Appeals and Interferences reverse the Examiner's decision in

this case and indicate the allowability of application claims 1-24.

In the event that this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees which may be due with respect to this paper may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

SQUIRE, SANDERS & DEMPSEY LLP



Majid S. AlBassam
Attorney for Applicant(s)
Registration No. 54,749

Atty. Docket No.: 058268.00137

8000 Towers Crescent Drive, 14th Floor
Tysons Corner, VA 22182-2700
Tel: (703) 720-7800
Fax (703) 720-7802

MSA:jf

Encls: Appendix 1 - Claims on Appeal
Appendix 2 - Evidence
Appendix 3 - Related Proceedings
Appendix 4 - Drawings

APPENDIX 1

CLAIMS ON APPEAL

1. (Previously Presented) A method of regulating transceiver power consumption for a transceiver in a communications network comprising:

monitoring data received by the transceiver to detect a presence of a received data signal; and

controlling a transceiver state machine to regulate transceiver power consumption in response to the presence or absence of the data received;

wherein the transceiver state machine includes a wake-up control and a power down control, the wake-up control being configured to send power control signals to a transmitter and the power down control being configured to send power control signals to all components of the transceiver.

2. (Original) The method of Claim 1, wherein the monitoring data received occurs during a time period of normal operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controlling the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.

3. (Original) The method of Claim 1, wherein the monitoring data received occurs during a time period of normal operating power consumption, and upon detecting the presence of a received signal for the first predetermined time, controlling the transceiver state machine to regulate transceiver power consumption to be at normal operating power.

4. (Original) The method of Claim 1, wherein the monitoring data received includes comparing a received data signal from the communications network with a reference signal and controlling the transceiver state machine when a magnitude of the received data signal exceeds the reference signal.

5. (Original) The method of Claim 1, wherein the monitoring data received occurs during a time period of minimized operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controlling the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.

6. (Original) The method of Claim 1, wherein the monitoring data received occurs during a time period of minimized operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controlling the transceiver state machine to transmit link determination signals to devices on the communications network.

7. (Original) The method of Claim 6, wherein upon detecting the absence of a received signal for a second predetermined time, controlling the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.

8. (Original) The method of Claim 7, wherein the data received are link response signals in response to the transceiver sending link determination signals to devices connected to

the communications network.

9. (Original) The method of Claim 6, wherein upon detecting the presence of a received signal, controlling the transceiver state machine to regulate transceiver power consumption to be at normal operating power.

10. (Original) The method of Claim 9, wherein the data received are link response signals in response to the transceiver sending link determination signals to devices connected to the communications network.

11. (Original) The method of Claim 1, wherein the monitoring data received occurs during a time period of minimized power consumption, and upon detecting the presence of a received signal for a predetermined standby time, controlling the transceiver state machine to regulate transceiver power consumption to be at normal operating power.

12. (Original) The method of Claim 11, wherein the monitoring data received occurs during a time period of minimized power consumption, and upon detecting the presence of a received signal for a second predetermined time subsequent to the predetermined standby time, controlling the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.

13. (Previously Presented) A transceiver power consumption regulator for a transceiver in a communications network comprising:

a data received monitor located on the transceiver to detect the presence or absence of a received data signal; and

a transceiver state machine coupled between the data received monitor and transceiver components to regulate transceiver power consumption of the transceiver in response to the presence or absence of the data received detected by the data received monitor;

wherein the transceiver state machine includes a wake-up control and a power down control, the wake-up control being configured to send power control signals to a transmitter and the power down control being configured to send power control signals to all components of the transceiver.

14. (Original) The transceiver power consumption regulator of Claim 13, wherein the data received monitor monitors data received during a time period of normal operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controls the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.

15. (Original) The transceiver power consumption regulator of Claim 13, wherein the data received monitor monitors data received during a time period of normal operating power consumption, and upon detecting the presence of a received signal for the first predetermined time, controls the transceiver state machine to regulate transceiver power consumption to be at normal operating power.

16. (Original) The transceiver power consumption regulator of Claim 13, wherein the data received monitor monitors data received by comparing a received data signal from the communications network with a reference signal and controls the transceiver state machine when a magnitude of the received data signal exceeds the reference signal.

17. (Original) The transceiver power consumption regulator of Claim 13, wherein the data received monitor monitors data received during a time period of minimized operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controls the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.

18. (Original) The transceiver power consumption regulator of Claim 13, wherein the data received monitor monitors data received during a time period of minimized operating power consumption, and upon detecting the absence of a received signal for the first predetermined time, controls the transceiver state machine to have link determination signals transmitted by the transceiver to devices on the communications network.

19. (Original) The transceiver power consumption regulator of Claim 18, wherein the data received monitor upon detecting the absence of a received signal for a second predetermined time, controls the transceiver state machine to regulate transceiver power consumption to be at minimized operating power.

20. (Original) The transceiver power consumption regulator of Claim 19, wherein the data

received are link response signals in response to the transceiver sending link determination signals to devices connected to the communications network.

21. (Original) The transceiver power consumption regulator of Claim 18, wherein the data received monitor upon detecting the presence of a received signal, controls the transceiver state machine to regulate transceiver power consumption to be at normal operating power.

22. (Original) The transceiver power consumption regulator of Claim 21, wherein the data received are link response signals in response to the transceiver sending link determination signals to devices connected to the communications network.

23. (Original) The transceiver power consumption regulator of Claim 13, wherein the data received monitor monitors data received during a time period of minimized power consumption, and upon detecting the presence of a received signal for a predetermined standby time, controls the transceiver state machine to regulate transceiver power consumption to be at normal operating power.

24. (Original) The transceiver power consumption regulator of Claim 23, wherein the data received monitor monitors data received during a time period of minimized power consumption, and upon detecting the presence of a received signal for a second predetermined time subsequent to the predetermined standby time, controls the transceiver state machine to regulate transceiver power consumption to be at minimized

operating power.

APPENDIX 2

EVIDENCE APPENDIX

No evidence under section 37 C.F.R. 1.130, 1.131, or 1.132 has been entered or will be relied upon by Appellants in this appeal.

APPENDIX 3

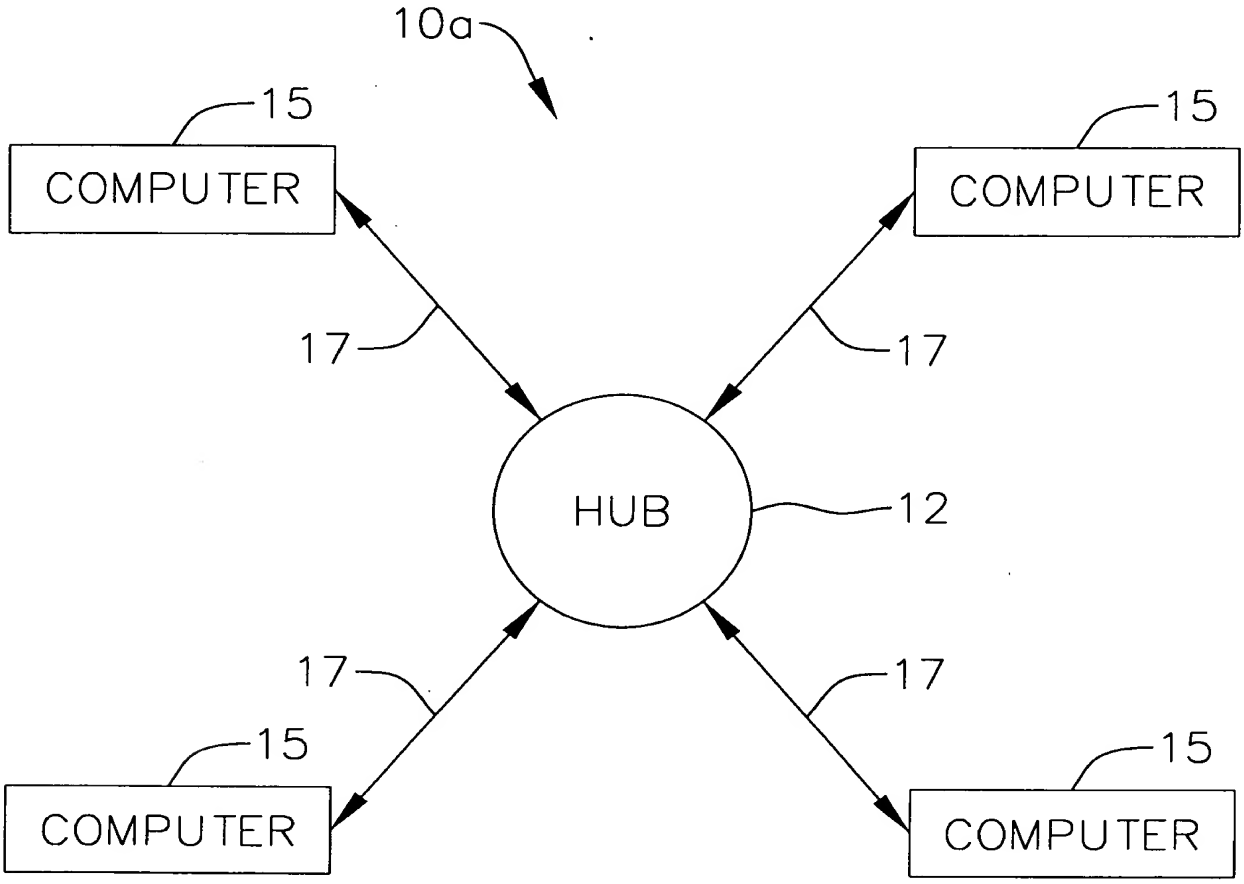
RELATED PROCEEDINGS APPENDIX

No decisions of the Board or of any court have been identified under 37 C.F.R. §41.37(c)(1)(ii).

APPENDIX 4

DRAWINGS OF APPLICATION SERIAL NO. 09/886,859

FIG. 1a



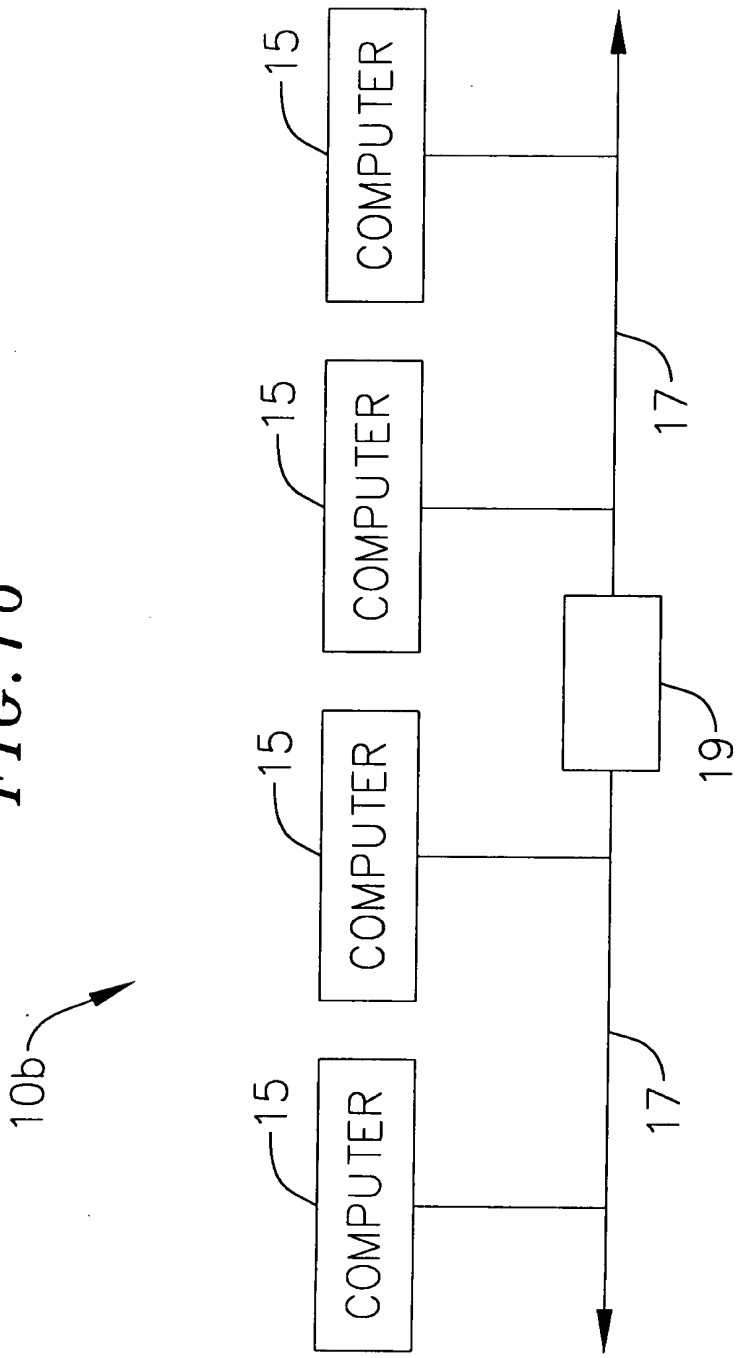


FIG. 1b

FIG. 2

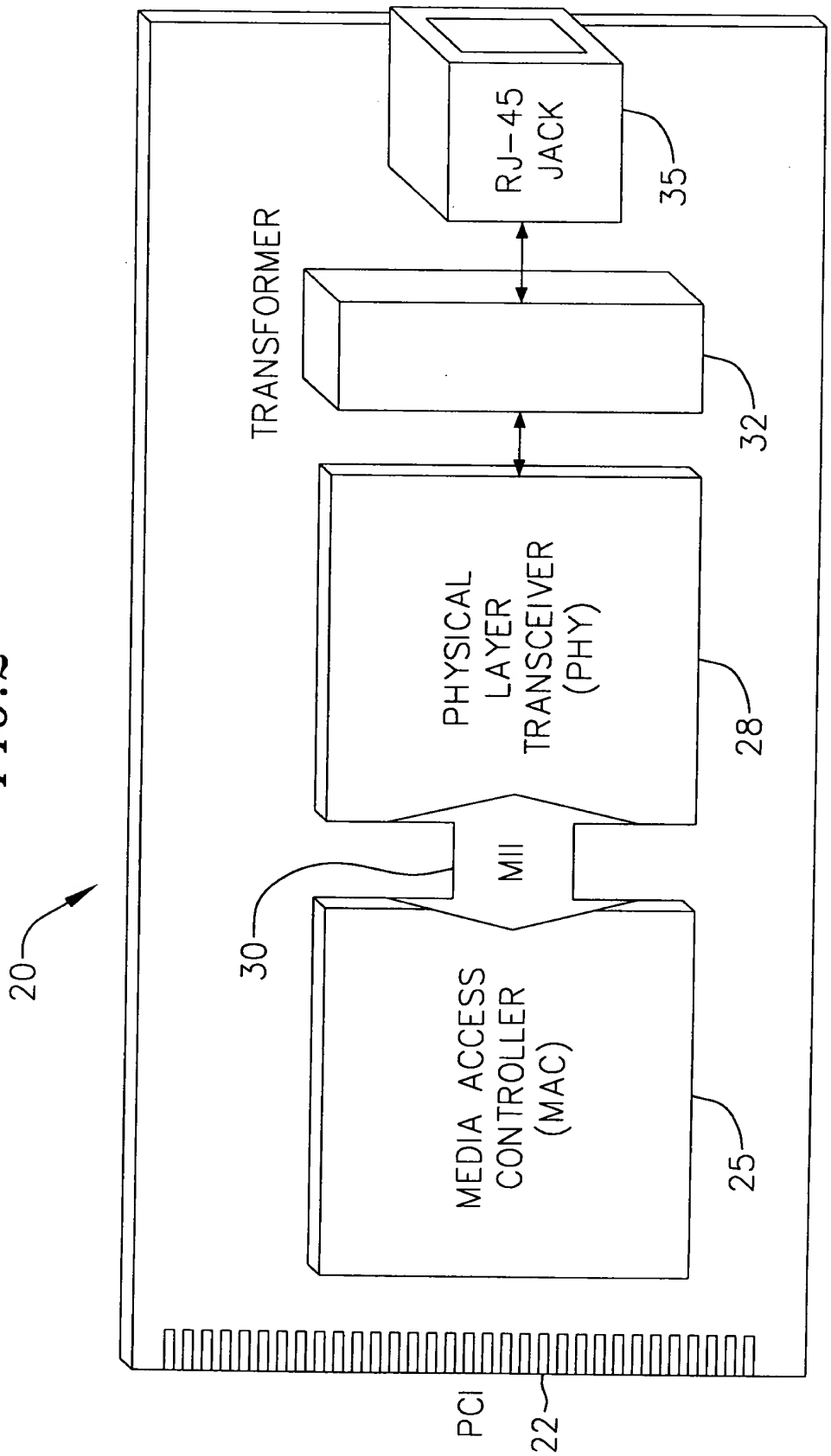


FIG.3

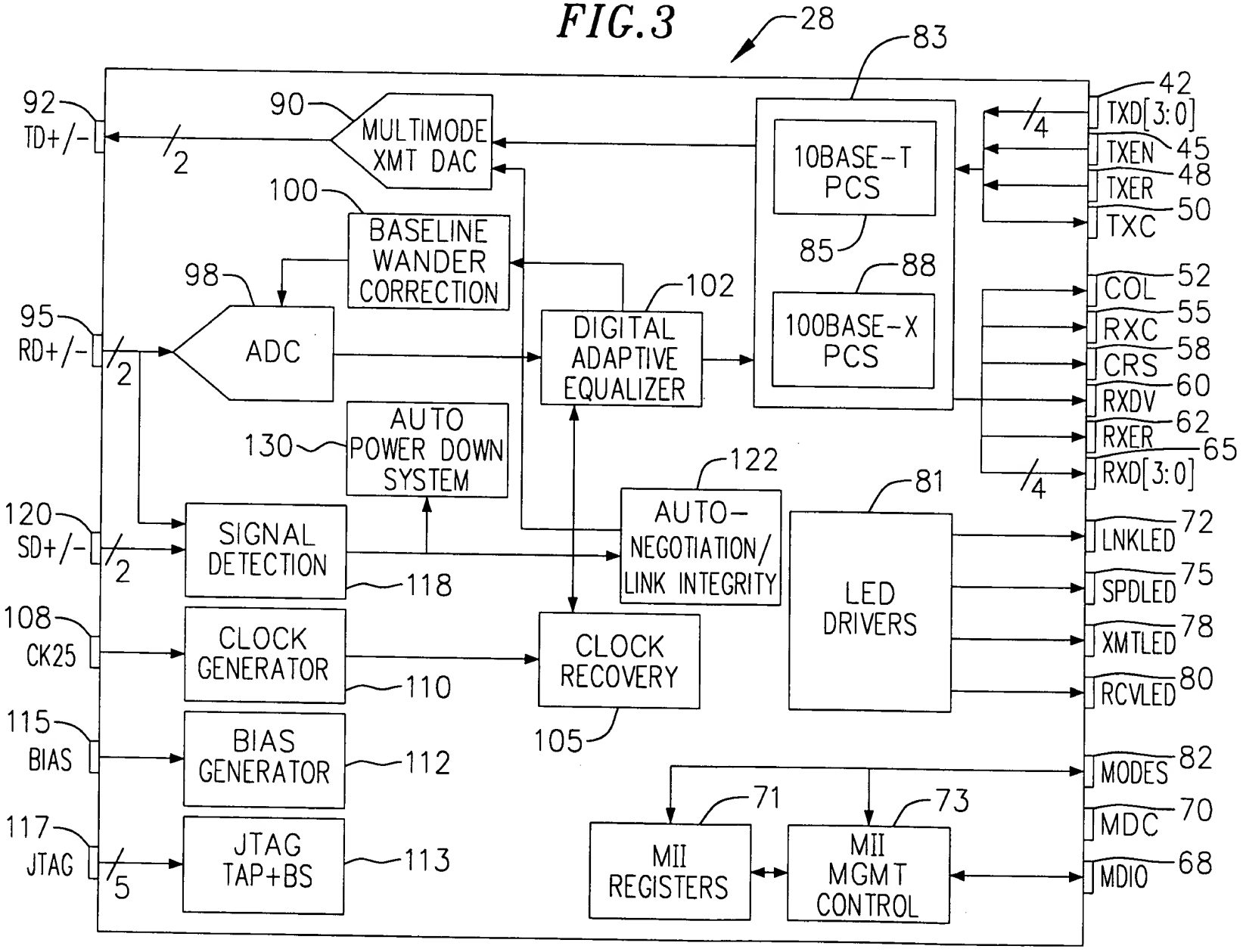


FIG. 4

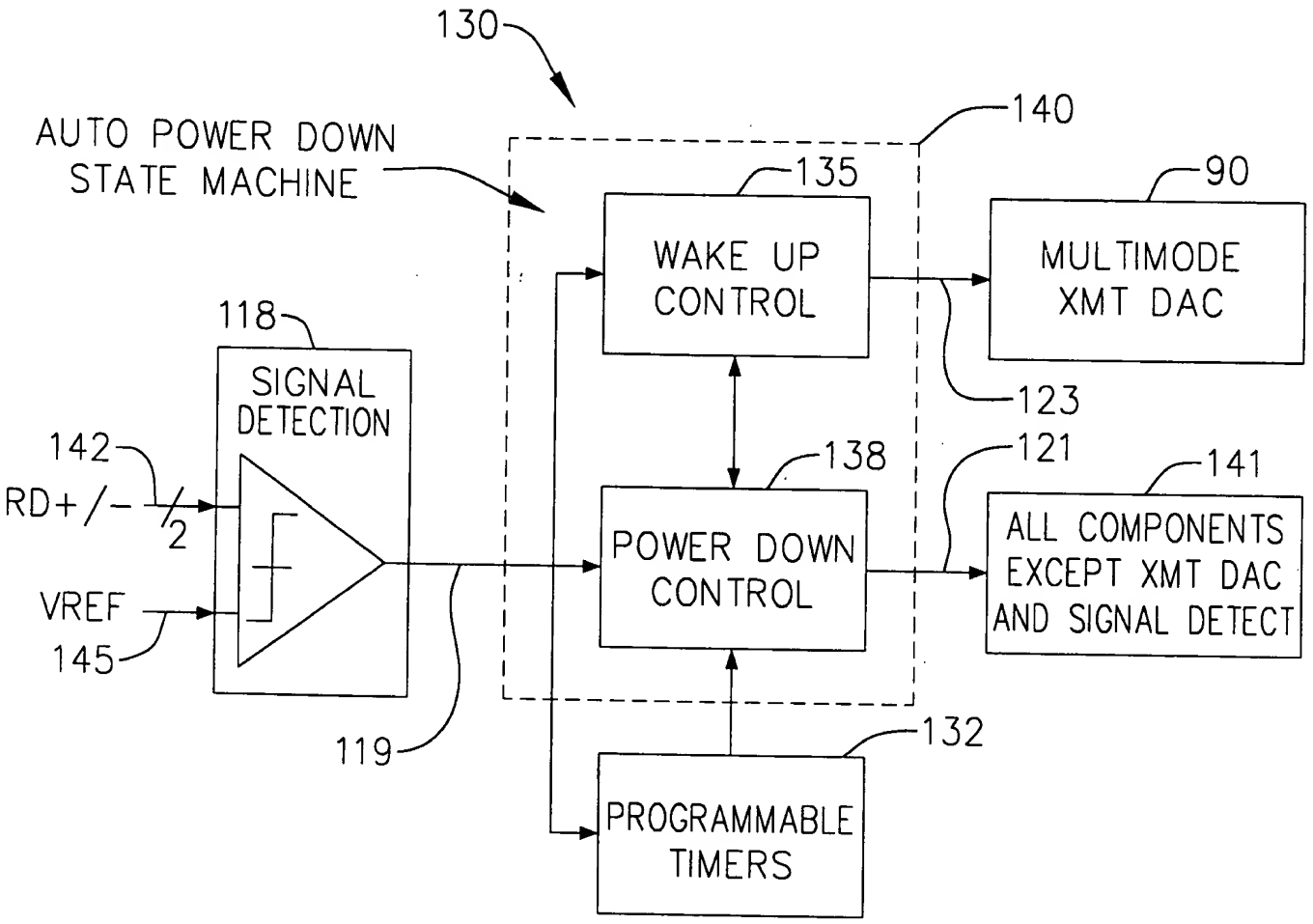


FIG.5